

USPN 09/767,150
Art Unit 2661
Amdt dated Jan 10, 2005
Reply to Office action of Sep. 10, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1.(currently amended) A method of assembling cells ~~for use in a cell relay network~~ supporting different types of cells to provide virtual circuits, comprising the steps of:
creating a cell template data structure representing the structure of a each type of cell to be assembled[[.]];
storing said cell template data structures in a memory[[.]];
~~and creating a pointer table to store the location of said cell template data~~
structures in said memory;
using said pointer table to locate said template data structures in said memory; and
~~creating assembling said cells by retrieving said cell template data structures from~~
said memory and inserting variable information data therein.
- 2.(cancelled)
- 3.(currently amended) A method as claimed in claim [[2]] 1, ~~wherein comprising creating a separate pointer is provided for each virtual channel in the said cell relay network.~~
- 4.(currently amended) A method as claimed in claim 1, wherein said data is time division multiplex (TDM) data organized into a plurality of channels, and comprising creating circular buffers for said data, storing pointers to said circular buffers in said template data structures, and reading said circular buffer pointers to circular pointers control which
~~circular buffers control which channels are associated with a virtual channel placed in the~~
payload of an assembled cell in said network.
- 5.(currently amended) A method as claimed in claim 4, ~~wherein comprising controlling the order in which data from said circular buffers pointers to control the order in which data is placed in the cell payload with said circular buffer pointers.~~
- 6.(currently amended) A method as claimed in claim 1, ~~wherein comprising creating said~~
template data structures is created by with a program running on a central processing unit.

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7.(currently amended) A method as claimed in claim 1, wherein said cell relay network provides Dynamic Bandwidth Circuit Emulation Service (DBCES) in a DBCES service with a multiframe structure, and comprising re-sizing of the said multiframe structure is carried out with the aid of using a DBCES cell template data structure.

8.(currently amended) A method as claimed in claim ~~[[6]]~~ 7, ~~for use in an SDT DBCES (Structured Data Transfer Dynamic Bandwidth Circuit Emulation) service, wherein~~ comprising partitioning the DBCES cell data structure has into three major regions, namely a first region containing information that does not change when the multiframe structure is re-sized, and two regions containing information that changes during multiframe resize.

9.(currently amended) A method as claimed in claim ~~[[1]]~~ 4, ~~wherein said cells are Unstructured Data Transfer (UDT), Structured Data transfer (SDT), or DSS (Dynamic Structure sizing) cells comprising reading said circular buffer pointers in a round-robin fashion.~~

10.(currently amended) A device for assembling cells from a data stream for transmission over a cell relay network to provide virtual circuits, comprising:

a memory storing cell a-template data structures representing the structure of a cells to be assembled; and

a pointer table for storing the location of said cell template data structures in said memory;

a segmentation unit for retrieving said template data structures from said memory using said pointer table and creating assembling cells by inserting variable information data into said cell template data structures to assemble said cells therein.

11.(currently amended) A device as claimed in claim ~~[[9]]~~ 10, wherein said memory is connected to a microprocessor controlling the operation thereof.

12.(cancelled)

13.(currently amended) A device as claimed in claim ~~[[9]]~~ 10, wherein said data is time division multiplexed (TDM) data, and further comprising circular buffers associated with TDM channels, and circular buffer pointers in said cell template data structures

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~~associated with virtual channels in said network, and circular pointers for controlling which circular buffers are associated with which TDM channels are placed into a cell payload.~~

14.(currently amended) A device as claimed in claim ~~[[9]]~~ 13, wherein the circular buffer pointers control the order in which data is placed in the cell payload.

15.(cancelled)

16.(cancelled)

17.(new) A device as claimed in claim 13, wherein the circular buffer pointers are read in a round robin fashion.

18.(new) A device for assembling cells from a time division multiplex (TDM) data stream organized into channels for transmission over a cell relay network to provide virtual circuits, comprising:

a memory for storing cell template data structures representing the structure of said cells;

a segmentation unit for retrieving said cell template data structures from said memory and assembling cells for a virtual circuit by inserting time division multiplex (TDM) data into said retrieved template data structures;

circular buffers associated with said TDM data channels; and

pointers in said cell template data structures for pointing to said circular buffers and controlling which circular buffers are associated with a particular virtual circuit.